



[4910-13-P]

## **DEPARTMENT OF TRANSPORTATION**

### **Federal Aviation Administration**

#### **14 CFR Part 39**

**[Docket No. FAA-2018-0804; Product Identifier 2018-NM-129-AD; Amendment 39-19442; AD 2018-20-08]**

**RIN 2120-AA64**

**Airworthiness Directives; Airbus SAS Airplanes**

**AGENCY:** Federal Aviation Administration (FAA), Department of Transportation (DOT).

**ACTION:** Final rule; request for comments.

**SUMMARY:** We are superseding Airworthiness Directive (AD) 2018-02-18, which applied to certain Airbus SAS Model A318, A319, and A320 series airplanes and Model A321-111, -112, -131, -211, -212, -213, -231, and -232 airplanes. AD 2018-02-18 required revising the airplane flight manual (AFM) to provide guidance to the flightcrew for certain emergency procedures. This new AD requires revising the AFM, and for certain airplanes, removing a certain AFM revision. This AD also adds airplanes to the applicability. This AD was prompted by a determination that, when two angle of attack (AoA) sensors are adversely affected by icing conditions at the same time, data displayed on the back up speed scale (BUSS) could be erroneous. This AD was also prompted by a determination that the AFM needs to be revised for certain additional airplanes, and that the AFM may have been erroneously revised on certain airplanes not equipped with a BUSS function. We are issuing this AD to address the unsafe condition on these

products.

**DATES:** This AD is effective [INSERT DATE 15 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

We must receive comments on this AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to <http://www.regulations.gov>. Follow the instructions for submitting comments.
- Fax: 202-493-2251.
- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.
- Hand Delivery: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this final rule, contact Airbus SAS, Airworthiness Office – ELIAS, Rond-Point Emile Dewoitine No: 2, 31700 Blagnac Cedex, France; telephone +33 5 61 93 36 96; fax +33 5 61 93 44 51; email [account.airworth-eas@airbus.com](mailto:account.airworth-eas@airbus.com); Internet <http://www.airbus.com>. You may view this referenced service information at the FAA, Transport Standards Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195. It

is also available on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2018-0804.

### **Examining the AD Docket**

You may examine the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2018-0804; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Operations office (telephone 800-647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

**FOR FURTHER INFORMATION CONTACT:** Sanjay Ralhan, Aerospace Engineer, International Section, Transport Standards Branch, FAA, 2200 South 216th St., Des Moines, WA 98351; telephone and fax 206-231-3223.

### **SUPPLEMENTARY INFORMATION:**

#### **Discussion**

We issued AD 2018-02-18, Amendment 39-19171 (83 FR 5182, February 6, 2018) (“AD 2018-02-18”), which applied to certain Airbus SAS Model A318, A319, and A320 series airplanes and Model A321-111, -112, -131, -211, -212, -213, -231, and -232 airplanes. AD 2018-02-18 was prompted by a determination that when two AoA sensors are adversely affected by icing conditions at the same time, data displayed on the BUSS could be erroneous. AD 2018-02-18 required revising the AFM to provide guidance to the flightcrew for emergency procedures when erroneous airspeed indications are displayed on the BUSS. We issued AD 2018-02-18 to address erroneous airspeed data

displays, which could lead to an increased flightcrew workload, possibly resulting in reduced control of the airplane.

Since we issued AD 2018-02-18, we have determined that airplanes on which Airbus Service Bulletin A320-34-1543 was embodied in service are also subject to the unsafe condition, and that the AFM may have been erroneously revised on certain airplanes not equipped with a BUSS function.

The European Aviation Safety Agency (EASA), which is the Technical Agent for the Member States of the European Union, has issued EASA AD 2018-0189, dated August 30, 2018 (referred to after this as the Mandatory Continuing Airworthiness Information, or “the MCAI”), to correct an unsafe condition for all Airbus SAS Model A318, A319, and A320 series airplanes and Model A321-111, -112, -131, -211, -212, -213, -231, and -232 airplanes. The MCAI states:

In extreme icing conditions, pitot probes may induce erroneous airspeed indications. To provide flight crews with reliable information on airspeed, Airbus developed a Back-up Speed Scale (BUSS and reversible BUSS, based on angle of attack (AoA) value) displayed on the Primary Flight Display (PFD), together with a PFD Back-Up Altitude Scale based on Global Positioning System (GPS) altitude. This BUSS function is intended to be used below flight level (FL) 250 only. Following new investigation related to AoA probes blockages, it was identified that, when two AoA sensors are adversely affected by icing conditions at the same time, data displayed on the BUSS could be erroneous.

This condition, if not corrected, could lead to an increased flight crew workload, possibly resulting in reduced control of the aeroplane.

To address this potential unsafe condition, Airbus established specific operational instructions to be applied by the flight crew under certain defined conditions. The relevant procedure was incorporated into the applicable A320 family AFM [airplane flight manual] since 07 March

2017 (publication date). Consequently, EASA issued AD 2017-0257 (later revised) to require a one-time AFM amendment to introduce the additional operational procedure.

Since EASA AD 2017-0257R1 [which corresponds to FAA AD 2018-02-18] was issued, it was determined that aeroplanes on which Airbus SB [service bulletin] A320-34-1543 (mod 154033) was embodied in service were inadvertently missing from the Applicability of the [EASA] AD.

For the reason described above, this [EASA] AD retains the requirements of EASA AD 2017-0257R1, which is superseded, and extends the Applicability to aeroplanes that embody Airbus SB A320-34-1543. This AD also requires removal of the AFM amendment, where it was mistakenly inserted in the AFM of an aeroplane not equipped with the BUSS function, prompted by the Applicability definition and requirements of EASA AD 2017-0257 at original issue.

You may examine the MCAI on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2018-0804.

#### **FAA's Determination and Requirements of this AD**

This product has been approved by the aviation authority of another country, and is approved for operation in the United States. Pursuant to our bilateral agreement with the State of Design Authority, we have been notified of the unsafe condition described in the MCAI and service information referenced above. We are issuing this AD because we evaluated all pertinent information and determined the unsafe condition exists and is likely to exist or develop on other products of the same type design.

#### **FAA's Justification and Determination of the Effective Date**

An unsafe condition exists that requires the immediate adoption of this AD without providing an opportunity for public comments prior to adoption. The FAA has found that the risk to the flying public justifies waiving notice and comment prior to

adoption of this rule because when two AoA sensors are adversely affected by icing conditions at the same time, data displayed on the BUSS could be erroneous, leading to an increased flightcrew workload that could ultimately result in reduced control of the airplane. Therefore, we find good cause that notice and opportunity for prior public comment are impracticable. In addition, for the reason(s) stated above, we find that good cause exists for making this amendment effective in less than 30 days.

### **Comments Invited**

This AD is a final rule that involves requirements affecting flight safety, and we did not precede it by notice and opportunity for public comment. We invite you to send any written relevant data, views, or arguments about this AD. Send your comments to an address listed under the ADDRESSES section. Include “Docket No. FAA-2018-0804; Product Identifier 2018-NM-129-AD” at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this AD. We will consider all comments received by the closing date and may amend this AD because of those comments.

We will post all comments we receive, without change, to <http://www.regulations.gov>, including any personal information you provide. We will also post a report summarizing each substantive verbal contact we receive about this AD.

### **Costs of Compliance**

We estimate that this AD affects 1,250 airplanes of U.S. registry.

We estimate the following costs to comply with this AD:

### Estimated costs for required actions

Labor cost	Parts cost	Cost per product	Cost on U.S. operators
1 work-hour X \$85 per hour = \$85	\$0	\$85	\$106,250

### Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: "General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

This AD is issued in accordance with authority delegated by the Executive Director, Aircraft Certification Service, as authorized by FAA Order 8000.51C. In accordance with that order, issuance of ADs is normally a function of the Compliance and Airworthiness Division, but during this transition period, the Executive Director has delegated the authority to issue ADs applicable to transport category airplanes and associated appliances to the Director of the System Oversight Division.

## **Regulatory Findings**

We determined that this AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

1. Is not a “significant regulatory action” under Executive Order 12866;
2. Is not a “significant rule” under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979);
3. Will not affect intrastate aviation in Alaska; and
4. Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

## **List of Subjects in 14 CFR Part 39**

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

## **Adoption of the Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

### **PART 39 - AIRWORTHINESS DIRECTIVES**

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

#### **§ 39.13 [Amended]**

2. The FAA amends § 39.13 by removing airworthiness directive (AD) 2018-02-18, Amendment 39-19171 (83 FR 5182, February 6, 2018), and adding the



following new AD:

**2018-20-08 Airbus SAS:** Amendment 39-19442; Docket No. FAA-2018-0804; Product Identifier 2018-NM-129-AD.

**(a) Effective Date**

This AD is effective [INSERT DATE 15 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**(b) Affected ADs**

This AD replaces AD 2018-02-18, Amendment 39-19171 (83 FR 5182, February 6, 2018) (“AD 2018-02-18”).

**(c) Applicability**

This AD applies to the Airbus SAS airplanes identified in paragraphs (c)(1) through (c)(4) of this AD, certificated in any category, all manufacturer serial numbers.

(1) Model A318-111, -112, -121, and -122 airplanes.

(2) Model A319-111, -112, -113, -114, -115, -131, -132, and -133 airplanes.

(3) Model A320-211, -212, -214, -216, -231, -232, -233, -251N, and -271N airplanes.

(4) Model A321-111, -112, -131, -211, -212, -213, -231, and -232 airplanes.

**(d) Subject**

Air Transport Association (ATA) of America Code 34, Navigation.

**(e) Reason**

This AD was prompted by a determination that, when two angle of attack (AoA) sensors are adversely affected by icing conditions at the same time, data displayed on the back-up speed scale (BUSS) could be erroneous. We are issuing this AD to address

erroneous airspeed data displays, which could lead to an increased flightcrew workload, possibly resulting in reduced control of the airplane.

**(f) Compliance**

Comply with this AD within the compliance times specified, unless already done.

**(g) Definitions**

(1) Group 1 airplanes are those on which Airbus modification 35871 has been embodied in production, or Airbus Service Bulletin A320-34-1397 or Airbus Service Bulletin A320-34-1543 has been embodied in service (introducing air data monitoring and BUSS function), except airplanes on which Airbus modification 159281 has also been embodied in production, or Airbus Service Bulletin A320-34-1658 or Airbus Service Bulletin A320-34-1659 has also been embodied in service (installing reversible BUSS function).

(2) Group 2 airplanes are those that are not in Group 1 and that have amended the AFM as previously specified in EASA AD 2017-0257, dated December 22, 2017.

**(h) AFM Revision**

(1) For Group 1 airplanes, except for airplanes identified in paragraph (i) of this AD: Within 30 days after the effective date of this AD, revise the AFM to incorporate the procedure specified in figure 1 to paragraphs (h) and (i) of this AD.

(2) For Group 2 airplanes: Within 30 days after the effective date of this AD, revise the AFM by removing the procedure specified in figure 1 to paragraphs (h) and (i) of this AD from the AFM.

**Figure 1 to paragraphs (h) and (i) of this AD – AFM procedure**

<b>AIRBUS</b>  <b>A318/A319/A320/A321</b> AIRPLANE FLIGHT MANUAL	<b>EMERGENCY PROCEDURES</b>  <b>NAVIGATION</b>
---	--

NAV - ADR 1+2+3 FAULT

Ident.: EMER-34-00007047.0001001 / 02 MAR 17  
 Criteria: (SA and (154033 or 35871))  
 Impacted by TDU: 00014228 NAV - ADR 1+2+3 FAULT

APPROVED

<sup>1</sup> Note: *Flight controls are in alternate law. Refer to ABN-27 F/CTL - ALTN LAW (PROT LOST).*

Disconnect autopilot.  
 Turn off flight directors.  
 Disconnect autothrust.  
 Turn off all ADRs.  
 Fly the green area of the speed scale.

Note:

1. *Standby instruments may be unreliable.*
2. *The altitude displayed on the PFD is a GPS altitude.*
3. *Automatic cabin pressurization system is inoperative. Refer to ABN-21 CAB PR - SYS 1 + 2 FAULT.*
4. *Rudder travel limiter is inoperative. Refer to ABN-22-AUTOFLT AUTO FLT - RUD TRV LIM SYS.*
5. *If the BUSS does not react to longitudinal stick input when flying the green area of the speed scale, the flight crew must disregard the BUSS and adjust pitch attitude and thrust regarding flight phase and aircraft configuration to obtain and maintain target.*

Do not use speed brakes.  
 Maneuver with care.

● **When FLAPS 2:**

Extend landing gear by gravity. *Refer to ABN-32 L/G GRAVITY EXTENSION.*

Approach speed: fly the bug.  
 Apply necessary landing performance corrections.

Figure 1 to paragraphs (h) and (i) of this AD – AFM procedure continued

<b>AIRBUS</b>  <b>A318/A319/A320/A321</b> AIRPLANE FLIGHT MANUAL	<b>EMERGENCY PROCEDURES</b>  <b>NAVIGATION</b>
---	--

NAV - ADR 1+2+3 FAULT

Ident.: EMER-34-00007047.0005001 / 02 MAR 17 Criteria: (SA and ((154033 or 35871) and 151269)) Impacted by TDU: 00014228 NAV - ADR 1+2+3 FAULT	<b>APPROVED</b>
--	-----------------

<sup>2</sup> Note: *Flight controls are in alternate law. Refer to ABN-27 F/CTL - ALTN LAW (PROT LOST).*

Disconnect autopilot.  
 Turn off flight directors.  
 Disconnect autothrust.  
 Turn on probe and window heat.  
 Turn off all ADRs.  
 Fly the green area of the speed scale.

Note:

1. Standby instruments may be unreliable.
2. The altitude displayed on the PFD is a GPS altitude.
3. Automatic cabin pressurization system is inoperative. Refer to ABN-21 CAB PR - SYS 1 + 2 FAULT.
4. Rudder travel limiter is inoperative. Refer to ABN-22-AUTOFLT AUTO FLT - RUD TRV LIM SYS.
5. If the BUSS does not react to longitudinal stick input when flying the green area of the speed scale, the flight crew must disregard the BUSS and adjust pitch attitude and thrust regarding flight phase and aircraft configuration to obtain and maintain target.

Do not use speed brakes.  
 Maneuver with care.

● **When FLAPS 2:**

Extend landing gear by gravity. Refer to ABN-32 L/G GRAVITY EXTENSION.

Approach speed: fly the bug.  
 Apply necessary landing performance corrections.

Figure 1 to paragraphs (h) and (i) of this AD – AFM procedure continued

<b>AIRBUS</b>  <b>A318/A319/A320/A321</b> AIRPLANE FLIGHT MANUAL	<b>EMERGENCY PROCEDURES</b>  <b>NAVIGATION</b>
---	--

NAV - ADR 1+2+3 FAULT

Ident.: EMER-34-00007047.0003001 / 02 MAR 17 APPROVED  
 Criteria: (SA and ((154033 or 35871) and 38298))  
 Impacted by TDU: 00014228 NAV - ADR 1+2+3 FAULT

3 Note: *Flight controls are in alternate law. Refer to ABN-27 F/CTL - ALTN LAW (PROT LOST).*

Disconnect autopilot.  
 Turn off flight directors.  
 Disconnect autothrust.  
 Turn off all ADRs.  
 Fly the green area of the speed scale.

Note: 1. *When FLAPS 0, flight controls are in direct law. Refer to ABN-27 F/CTL - DIRECT LAW (PROT LOST).*

2. *Standby instruments may be unreliable.*  
 3. *The altitude displayed on the PFD is a GPS altitude.*  
 4. *Automatic cabin pressurization system is inoperative. Refer to ABN-21 CAB PR - SYS 1 + 2 FAULT.*  
 5. *Rudder travel limiter is inoperative. Refer to ABN-22-AUTOFLT AUTO FLT - RUD TRV LIM SYS.*  
 6. *If the BUSS does not react to longitudinal stick input when flying the green area of the speed scale, the flight crew must disregard the BUSS and adjust pitch attitude and thrust regarding flight phase and aircraft configuration to obtain and maintain target.*

Do not use speed brakes.  
 Maneuver with care.

● **When FLAPS 2:**

Extend landing gear by gravity. *Refer to ABN-32 L/G GRAVITY EXTENSION.*

Approach speed: fly the bug.  
 Apply necessary landing performance corrections.

**Figure 1 to paragraphs (h) and (i) of this AD – AFM procedure continued**

<b>AIRBUS</b>  <b>A318/A319/A320/A321</b> AIRPLANE FLIGHT MANUAL	<b>EMERGENCY PROCEDURES</b>  <b>NAVIGATION</b>
---	--

**NAV - ADR 1+2+3 FAULT**

Ident.: EMER-34-00007047.0006001 / 02 MAR 17 Criteria: ((SA and ((154033 or 35871) and 38298 and 151269)) or 320-200N) Impacted by TDU: 00014228 NAV - ADR 1+2+3 FAULT	<b>APPROVED</b>
--	-----------------

4     Note:    *Flight controls are in alternate law. Refer to ABN-27 F/CTL - ALTN LAW (PROT LOST).*

Disconnect autopilot.  
 Turn off flight directors.  
 Disconnect autothrust.  
 Turn on probe and window heat.  
 Turn off all ADRs.  
 Fly the green area of the speed scale.

Note:    1. *When FLAPS 0, flight controls are in direct law. Refer to ABN-27 F/CTL - DIRECT LAW (PROT LOST).*  
              2. *Standby instruments may be unreliable.*  
              3. *The altitude displayed on the PFD is a GPS altitude.*  
              4. *Automatic cabin pressurization system is inoperative. Refer to ABN-21 CAB PR - SYS 1 + 2 FAULT.*  
              5. *Rudder travel limiter is inoperative. Refer to ABN-22-AUTOFLT AUTO FLT - RUD TRV LIM SYS.*  
              6. *If the BUSS does not react to longitudinal stick input when flying the green area of the speed scale, the flight crew must disregard the BUSS and adjust pitch attitude and thrust regarding flight phase and aircraft configuration to obtain and maintain target.*

Do not use speed brakes.  
 Maneuver with care.

● **When FLAPS 2:**  
       Extend landing gear by gravity. *Refer to ABN-32 L/G GRAVITY EXTENSION.*

Approach speed: fly the bug.  
 Apply necessary landing performance corrections.

**(i) Optional Method of Compliance**

Airplanes operated with an AFM having the NAV – ADR 1+2+3 FAULT procedure identical to the procedure specified in figure 1 to paragraphs (h) and (i) of this AD, with an approval date on or after March 2, 2017, are compliant with the requirements of this AD, provided that the procedure is not removed from the AFM.

**(j) Other FAA AD Provisions**

The following provisions also apply to this AD:

(1) *Alternative Methods of Compliance (AMOCs)*: The Manager, International Section, Transport Standards Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the International Section, send it to the attention of the person identified in paragraph (k)(2) of this AD. Information may be emailed to: 9-ANM-116-AMOC-REQUESTS@faa.gov. Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(2) *Contacting the Manufacturer*: As of the effective date of this AD, for any requirement in this AD to obtain corrective actions from a manufacturer, the action must be accomplished using a method approved by the Manager, International Section, Transport Standards Branch, FAA; or the European Aviation Safety Agency (EASA); or Airbus SAS's EASA Design Organization Approval (DOA). If approved by the DOA, the approval must include the DOA-authorized signature.

**(k) Related Information**

(1) Refer to Mandatory Continuing Airworthiness Information (MCAI) EASA AD 2018-0189, dated August 30, 2018, for related information. This MCAI may be found in the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2018-0804.

(2) For more information about this AD, contact Sanjay Ralhan, Aerospace Engineer, International Section, Transport Standards Branch, FAA, 2200 South 216th St., Des Moines, WA 98351; telephone and fax 206-231-3223.



**(l) Material Incorporated by Reference**

None.

Issued in Des Moines, Washington, on September 20, 2018.

John P. Piccola, Acting Director,  
System Oversight Division,  
Aircraft Certification Service.

[FR Doc. 2018-21347 Filed: 10/1/2018 8:45 am; Publication Date: 10/2/2018]